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Grade 4th

Water, Energy and Sustainability

Curriculum: Science

Time 60 minutes

Summer lesson Plan- Water cycle

**Essential Question:** What are the processes that take place during the water cycle?

**Background:** I work with Special needs children with various cognitive levels. My class ranges from emergent readers to advanced ones. The lesson will be adapted to accommodate the individual needs of every student in my classroom. The purpose of the lesson is to familiarize students with the process of Water Cycle and the never –ending movement of Earth’s water through evaporation, condensation, precipitation and run-off. Students will learn how water moves from different Earth surfaces into the atmosphere.

1e: Designing Coherent Instruction

* Lessons that support instructional outcomes
* Activities that represent high –level thinking
* Thoughtfully planned learning groups
* Structured lesson plan

3c: Engaging students in learning

* Activities aligned with goals of the lesson
* Student enthusiasm, interest, thinking, problem –solving, etc
* Learning tasks that require high-level student thinking and are aligned with lesson objectives.
* Students highly motivated to work on all tasks and are persistent even when the tasks are challenging.

Objectives: Students will be able to identify and explore the concept of water cycle.

Students will be able to explain the term evaporation, condensation and precipitation and their various roles in the water cycle

**Standards Addressed:**

**Inquiry Skills, Standard 1**

**Key Idea 1.**

S1.1a Observe and discuss objects and events and record observations

S1.1b Articulate appropriate questions based on observations

S1.2 Question the explanations they from others and read about, seeking clarification and comparing them with their own observations and understandings.

2.1 c Water is recycled by natural processes on Earth

Water can be solid (ice) liquid (water) or gas water vapor)

* evaporation: liquid water evaporates to become invisible water vapor
* condensation: When cooled water vapor condenses to become liquid water.
* precipitation, rain, sleet, snow, hail
* runoff: water flowing on Earth’s surface
* groundwater: water that moves downward into the ground

Materials and websites: [www.brainpop.com](http://www.brainpop.com), chart paper, markers, pencils, craft materials, glitter, Aqua maze water cycle games.

**Get Ready**

What happens to a puddle of water after you finish playing in it? Can you jump into the same puddle tomorrow? Next week? Where does the water go?

**Procedure**

1) Teacher will tell the students that the purpose of the lesson is to learn what takes place during the water cycle. He or she will write the vocabulary terms on the board so students will become familiar with the concepts of Water cycle. Explain that the Water Cycle can be defined as the evaporation and condensation of the moisture in the atmosphere and on earth that controls the distribution of the earth’s water as it evaporate from bodies of water, condenses, precipitates and returns to those bodies of water.

2) Teacher will begin with the introduction about the Water Cycle and ask students if they know the four parts of the water cycle. Teacher will show students charts on the four parts of water cycle to help them visualize what happens during the cycle.

3) After the introduction, teacher will model how to make water cycle pictures by dividing a piece of paper into four squares with a pencil. Each square will represent a different part of water cycle.

4) Students will draw the different parts using certain materials. For example the clouds for condensation can be cotton balls, precipitation can be blue beads and a pound of glitter etc.

5). After drawing the different stages of water cycle, Students will then play an Aqua maze water cycle game to demonstrate the predicaments that water faces as it makes its way around the water cycle. Students will place several drops of water on the game board and move the drops around the water cycle to avoid pollution and or water loss. Students should note possible hazards that water encounters as it goes through the process.

6). By using these activities students will have a better understanding of what the water cycle is. They will learn the four different stages as well as having fun games by doing art projects.

**Assessment/Rubric**

Students will be assessed by verbal responses during the whole group portion of the lesson and teacher direct observation throughout the lesson.

**Independent work**: Students will go back to their seats and complete handouts identifying the water cycle with its visual representation and definition.